

MAY *v.* COUNTY OF FOND DU LAC.<sup>1</sup>*Circuit Court, E. D. Wisconsin.*

May 15, 1886.

## 1. PATENTS FOR INVENTIONS—INVENTION.

To be patentable, a thing must not only be new and useful, but must amount to an invention or discovery.

## 2. SAME—COMBINATIONS.

Each and all of the separate parts of a combination may be old and well known. Nevertheless, if the combination is new, produces a new and useful result, and requires more than mere mechanical skill to produce it, it is patentable.

## 3. SAME—PIONEER INVENTORS—IMPROVERS.

A patent original in its character is entitled to a broader construction than one which is for a mere improvement.

## 4 SAME—INFRINGEMENT.

An infringement takes place whenever a party avails himself of the invention of the patentee without such variation as will constitute a new discovery.

## 5. SAME—WHAT INFRINGES.

Whether or not one machine is an infringement of another does not necessarily depend upon whether the mechanical constructions are different, but whether the new idea is completely embodied in the structure as found.

## 6. SAME—MECHANICAL EQUIVALENTS.

A mere mechanical substitute for a thing must be regarded as the thing itself.

## 7. SAME—DEFINED.

Mechanical devices are equivalents when skillful and experienced workmen know that one will produce the same result as another

## 8. SAME—QUESTION FOR JURY.

Whether the defendant has used substantially the Same means, or, in other words, mechanical equivalents, to accomplish the same result, is a question for the jury to determine.

## 9. SAME—INFRINGEMENT—DIFFERENCE IN DEGREE.

To constitute an infringement, it is not necessary that the result accomplished should be precisely the same in degree as that of the inventor, but it must be the same in kind.

10. SAME—EXPERT TESTIMONY, FORCE OF.

The testimony of a mechanical expert, in a suit for infringement, must be tried by the same tests that are applied to the evidence of other witnesses; and it must receive just such credit and weight as it appears to be entitled to from all the circumstances, and no more.

11. SAME—DAMAGES—ESTABLISHED ROYALTY.

A fixed royalty, at which the right to use the patented device was sold, being shown, such royalty constitutes the proper measure of damages.

12. SAME—INTEREST ON DAMAGES.

In this case the jury were instructed that if they allowed damages they should also allow interest at the rate of 7 per cent, from the date of commencing suit.

Suit at law to recover damages for infringement of letters patent No. 25,662, granted to Edwin May, October 4, 1859, for improvements in the construction of prisons, extended October 4, 1873, for seven years, damages being claimed only for infringements committed within the extended term. Defendant pleaded—First, the general issue; second, the statute of limitations of the state of Wisconsin as to so much of the cause of action as was for the alleged infringements committed prior to the twenty-ninth day of September, 1879, (six years before the suit was commenced;) third, lack of novelty, in that one Radcliff, then a prisoner in the state prison at Waupun, Wisconsin, was the original inventor; and, fourth, prior use at said Waupun.

*G. W. Hazelton, Edward Taggart, and M. C. Burch,*  
for plaintiff.

*Shepard & Shepard and F. F. Duffy,* for defendant.

DYER, J., (*charging jury.*) This is a suit at law to recover damages for the alleged infringement of a patent granted to Edwin May, on the fourth day of October, 1859. As you are aware, when a party invents a new and useful device or improvement, the

laws of the United States provide that, for a limited term of years, he shall have an exclusive 693 property right in such invention, which means the sole and exclusive privilege of manufacturing, using, and selling the same. If the subject-matter of a patent possesses the requisites of novelty and utility,—if it constitutes an invention or discovery,—the owner of the patent, and of the rights secured by it, will be protected against the use of it by any other person without his consent. As the product of his inventive faculty, the invention is just as much the property of the inventor as his house or farm, and no man has the right to appropriate it to his own use, against the patentee's will, any more than he has to take from him his house or farm. The laws of the United States on this subject are designed to encourage meritorious and useful inventions, and to protect their owners in the profitable enjoyment of them during the period fixed by the statute. If, therefore, a new and useful invention, covered by a valid patent, is exhibited in this case, and if the defendant has unlawfully pirated upon it, the plaintiff is entitled to recover damages on account of such invasion of her rights, the same as if she had suffered disturbance of any other property right. As I have said, the patent in suit was granted October 4, 1859. The term of the patent was 14 years; so that the original term expired October 4, 1873. But, as provided by law, the patent was renewed and extended for the further term of seven years from and after the expiration of the first term; so that the patent continued in force until the fourth day of October, 1880, when it finally expired. It seems that on the twenty-seventh day of February, 1880, the patentee, Edwin May, died, and, in the course of administration of his estate, there was a sale of all rights under the patent, by the administrator, to the plaintiff, who became the owner in law, on the sixth day of March, 1882, of all rights of action and

claims for damages on account of infringements of the patent which accrued prior to October 4, 1880.

It is charged by the plaintiff that between the fourth day of October, 1873, when the patent was extended, and the fourth day of October, 1880, when it finally expired, the defendant, the County of Fond du Lac, wrongfully, and without license from the plaintiff or her assignor, or the patentee, used a mechanical apparatus which was an infringement of the patent; and it is on account of this alleged use that the plaintiff seeks to recover damages. The patent relates to an alleged new and useful improvement in the construction and operation of prisons. The evident object of the improvement is to avoid the necessity of actual contact with the prisoners, while the keeper can observe their movements, and, with security to himself, control them. The patent is what is known as a combination mechanical patent, and the utility of the thing or things patented is apparent, I think, at a glance. To construct a jail or prison so that prisoners can be safely kept, and their movements controlled, and so that the jailer is at the same time secured from violence, is without doubt & beneficial object. A model of the patentee's improvement has been 694 exhibited to you. In practical operation of the alleged invention, as stated in the specifications of the patent, the jailer, upon going into the outside entrance, is separated from the hall or room in which the prisoners may be by an angle door, which is locked, and which, from its peculiar shape, enables him to observe all parts of the hall, and the movements of the prisoners. Upon opening a small side door, (which side door has no relation to the patent,) he has access to a crank, which operates the doors in the partition between the first room and the rooms adjoining the cells, by means of an endless chain or rope, which passes around a drum, and is attached to a hinge or joint of a lever connected with the partition

doors. Prisoners in the first room or hall being ordered to retire through these doors, the doors are then fastened by operating the crank before mentioned. The keeper may then unlock the angle door, and pass into the first hall or corridor, and is separated from the prisoners by the partition between it and the room beyond. Then, the prisoners being ordered to their respective cells, the doors of the cells may be fastened by operating a lever in the first corridor connected with bars, which, upon being drawn by means of connecting bolts, secures the doors. The keeper may then pass in and lock the cell doors, and thus a partition or iron grating is all the time kept between the prisoners and the keeper.

There are four claims in the patent, but it is not contended that the defendant infringes the second claim. The first, third, and fourth claims are here involved. The first claim is for the angle door, when constructed and operated substantially as set forth, in combination with the lock or bolt which secures it so as to prevent entrance through it from within to the outside. The third claim is for the endless chain or rope, in combination with the levers by which the partition doors are operated, when constructed and operated substantially as and for the purposes set forth. The fourth claim is for the combination and arrangement of the levers, bars, and bolts or lugs connected with the cell doors, when operated from without the grating, substantially as and for the purposes set forth.

Now, I suppose, gentlemen, that you understand just what these claims are. The first claim, you will understand, [illustrating from the model,] is for this door, which is called an "angle observation door," and the fastening of that door, which is just inside this little space into which the door opens. The second claim (the third claim, as mentioned in the patent; the second claim in question here) is for this endless chain

or rope, in combination with the levers, D,—that is, the levers with which it connects here; and by means of which these doors—the doors in this partition between the first corridor and the cell rooms—are operated; and the last claim is for this lever inside the corridor, in connection with the bars and bolts and lugs, by means of which the cell doors are operated. These are the several claims said to be infringed, and each is known as a combination claim; 695 that is, each is a claim for a combination of several mechanical structures.

The patent law recognizes as patentable an improvement in any art or mechanical construction or combination which is useful to the public, and not before known. To be patentable, a thing must not only be new and useful, but must amount to an invention or discovery. Although the result is produced by a mechanism which combines old mechanical elements or powers, without the use of any new element, the true question in such a case is whether the combination of elements by the patentee is new. If they have never been combined together in the manner stated in the patent, and if the combination is new and useful, not being the result of mere mechanical skill, but of invention, then it is patentable. Each and all of the separate parts of a combination may be old and well known. The combination may contain the lever, the pulley, the wheel, and other well-known and long-used devices which would not, separately, be patentable; nevertheless, if the combination is new, and produces a new and useful result, it—that is, the combination—is patentable. Almost all combination structures are made up of separate parts and elements which are old and well known, and if that fact alone would invalidate a patent, some of the most valuable inventions of the present day would at once become the common property of the public, and valueless to their owners. The law does not encourage or sanction the defeat of combination patents on the ground that

the several parts are old, if the combination is new and useful.

The patent here in question has been passed upon by the late circuit justice of this circuit, (Mr. Justice DAVIS,) in a suit at law like this, to recover damages for infringement. As appears from his charge to the jury, which we have before us, no combination was shown, as none is shown here, anticipating May's invention. In that case, as in this, the questions of originality, novelty, and patentability arose upon the patent itself, and the mechanical structure patented; and Judge DAVIS held the patent valid, and instructed the jury that the combination patented, exhibited invention, and was entitled to protection. That ruling, thus made in this circuit, by my official superior, ought to be controlling here, and I regard it as controlling; the same patent being involved in both cases, and it not appearing that anything materially different is shown here from what was shown there. Judge DAVIS says that the May patent is really for a method unknown before of bolting prison doors without coming in contact with prisoners. "To do this in the way shown," he said, "is patentable, and he is to be considered as the original combiner of this mechanical arrangement so as to produce the intended result. In doing this, he has used nothing new, nor was he required to do it. Bolts, bars, locks, levers, and pulleys are all old; but the patentee used them in such a way that the jailer can control the prisoners by working the doors while remaining away from the prisoners. It is the 696 working of the doors so as to avoid the necessity of actual contact with the prisoners, which is his invention. This is his idea, as he has carried it into successful practice." This was the view taken of this patent by Judge DAVIS in the Indiana case, and in that view I fully concur. The patentee was a pioneer in the field. His patent was an original one. He did not, so far as is shown here, merely construct

an improvement on a structure previously patented. As Judge DAVIS said, he was the original combiner of the various parts of his apparatus, arranging them so as to produce a new and useful result.

The claims of the patent are to be read in the light of, and in connection with, the specifications. This is an elementary principle in patent law, and, so reading them,—that is, reading them in the light of what was sought to be accomplished,—it does not do to say that the mere connection of a lever with bars and bolts, or the connection of a lever with an endless chain, or the mere attachment of a lock to a door, or the mere construction of a door of peculiar shape, does not constitute invention. The adjustment of the apparatus, the relation of the different combinations to the jail or prison, the objects sought, and the results attained, are all to be considered; especially in a patent like this, original in its character, and therefore entitled to a broader construction than one which is for a mere improvement on something of the same nature which has been previously invented. This would be naturally and was undoubtedly the view taken of this patent by Judge DAVIS, and I think it the correct view. So the conclusion is that the patent in suit was valid, and that the combinations therein described were patentable.

All this it was perhaps unnecessary to say to you, because the only question which it is necessary for you to consider is whether the structures used by the defendant county, in its jail, are an infringement of the May invention. But, in view of the discussion at the bar, I desired counsel to fully understand the view which the court takes of the patent, and of the patentability of this invention. If, then, you find that in all or either of the claims here in question, namely, the first, third, and fourth, the defendant has been guilty of infringement as charged, then the plaintiff should have a verdict. If you find that neither of the claims was infringed, then the defendant should have your verdict.



What constitutes an infringement in a case like this is so well defined in a charge of the court to a jury in a reported case I have before me, that I read to you from the printed volume:

“An infringement takes place whenever a party avails himself of the invention of the patentee without such variation as will constitute a new discovery. An infringement involves substantial identity, whether that identity is described by the terms, ‘the same principle’ ‘*same modus operandi*,’ or any other. It is a copy of the thing described in the specifications of the patentee, either without variation, or with only such variations as are consistent with its being, in substance, the same thing. No certain, definite rule can be stated 697 by which to determine unerringly, in every case, what will amount to substantial identity. The jury, guided by general principles, must determine each case upon its own circumstances. If, however, the invention of the patentee be a machine, or an improvement on a machine, it will be infringed by a machine which incorporates in its structure and operation the substance of the invention; that is, by an arrangement of its mechanism which performs the same service, or produces the same effect, in the same, or substantially the same way. The question is whether the given effect is produced substantially by the same mode of operation, and the same combination of powers and devices in both machines. Mere colorable or evasive differences cannot defeat the right of the original inventor. The inquiry, therefore, should be whether the defendant’s device is, in substance and effect, a colorable evasion of the plaintiff’s contrivance, or whether it is really a new and substantially different thing. If the defendants have taken the same general plan, and applied it for the same purpose, and produced the same effect, in substantially the same mode, although they have varied the form or construction merely, it will still be, substantially, in

contemplation of the patent law, the same thing; otherwise it will not. Whether or not one machine is an infringement of another, therefore, does not necessarily depend upon whether the mechanical constructions are different; but the question is whether, whatever be the mechanical construction, the latter machine contains the means or combination found in the previous machine; whether, taking the structure as you find it, you see the new idea completely embodied in it. \* \* \* If the defendants have only varied their combination by employing well-known mechanical substitutes for some one or more material elements or parts of the plaintiff's combination, then there is an infringement; for a mere known mechanical substitute for a thing, for the purpose of determining the question in issue, must be regarded as the thing itself. \* \* \* When, in mechanics, one device does a particular thing, or accomplishes a particular result, every other device known and used in mechanics, which skillful and experienced workmen know will produce the same result, or do the same particular thing, is a known mechanical substitute for the first device mentioned, for doing the same thing or accomplishing the same result, although the first device may never have been detached from its work, and the second one put in its place. It is sufficient to constitute known mechanical substitutes that when a skillful mechanic sees one device doing a particular thing, that he knows the other devices, whose uses he is acquainted with, will do the same thing."

Now, within these definitions, does the structure used by the defendant infringe the May device? In their general scope and object they seem to be quite alike, and are evidently intended to secure the same result. Do they differ essentially in their organization or mode of operation? The one is evidently equivalent to the other, as producing the same result. But in this sense it is not material to consider the subject.

The question is whether the defendant has used substantially the same means, or, mechanically speaking, equivalent means, to accomplish the same result. If it has, it is an infringer; otherwise not; and whether it has or not is a question for the jury to determine. As we have seen, a mechanical equivalent, as generally understood, is where one may be adopted instead of the other, by a skilled mechanic, accustomed to machinery, with a competent knowledge of mechanical powers. If such a man, seeing a new machine, and having a full description of the thing invented, can, by examining 698 it with care, see that the required thing can be done in a different mode, and it is done in that different mode by the knowledge which he has of his business, he has not produced a new invention, nor one substantially differing from the original. But if the inventive faculties are exercised to produce the change, then he has a right to the benefits of whatever he thus invents. There must be invention involved in the change, and not the mere skill of the workman, to avoid the consequences of an infringement. The question here is, does the structure used by the defendant substantially embody May's mode of operation, and thereby obtain the same results as were reached by his invention? It is not necessary that the result should be precisely the same in degree, but it must be the same in kind. For instance, shutting one door instead of two is a difference in degree, but not in kind; the same function is performed.

Now, keeping in mind that the May invention consists of certain mechanical means which enable the jailer, from the moment he enters the outer door, to control the prisoners, by fastening the corridor doors while separated from them, the question is, do the means employed by the defendant in its jail infringe them? Has the defendant used the plaintiff's invention, or something substantially like it? Do the structures operate upon the same principle? If there

are differences, are they or not mere differences in form, producing the same result? The plaintiff's invention secured to the inventor not only the particular means described in the patent, but all other mechanical contrivances which are equivalents. When these mechanical arrangements are thus compared and analyzed, if differences be found, it is for you to determine whether these differences are *substantial*, or are only formal and evasive, arising from employing in the defendant's jail, in the place of those specific parts or devices of the May combination, other known mechanical substitutes therefor. If substantial, then there is no infringement; but if merely formal or evasive, and not substantial, there is an infringement.

The testimony of the expert which has been introduced you are to consider like any other evidence. You are to try it by the same tests that you apply to the evidence of other witnesses, and give it just such credit and weight as you deem it entitled to from all the circumstances, and no more. You have the models before you, and these, I think, are readily comprehended. The undisputed evidence shows, I think, a fixed royalty of \$50 for each cell, at which the plaintiff's device, or the right to use it, was sold by the patentee in his lifetime. In such a case it is the ruling of the courts that such royalty constitutes the proper measure of damages. If, therefore, you find the plaintiff entitled to recover, you will allow her damages at the sum of \$50 for each cell in the Fond du Lac jail on which the invention was used prior to October 4, 1880, and subsequent to October 4, 1873. If there were 34 cells upon which it was used, the total amount would be \$1,700; and if you find for the plaintiff, you may 699 allow to her interest upon the gross sum at 7 per cent, from September 29, 1885. I have drawn forms of verdict, gentlemen, which I will allow you to take; and if you find for the plaintiff, we will ask you to state which of these claims you

find are infringed. You understand that if you find all these three claims, or either of them, infringed, then your verdict must be for the plaintiff. If you find that neither of the claims is infringed, your verdict will be for the defendant; and the court will ask you to state in your verdict, in the manner indicated in the form of verdict which the court will hand to you, what you find as to infringement of the claims.

Verdict finding infringement of each of the three claims in suit.

<sup>1</sup> Edited by Charles C. Linthicum, Esq., of the Chicago bar.

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